



Testimony by Dr. Louise Feroe
Connecticut State University System
Before the Higher Education and
Employment Advancement Committee
March 8, 2011

Senator Bye, Representative Willis and members of the Higher Education and Employment Advancement Committee. I appreciate your accepting written testimony on House Bill 6256, *An Act Concerning Workforce Development*, as my schedule unfortunately would not permit my attendance during your public hearing.

The Connecticut State University System (CSUS) places a high priority on the state's workforce needs and the job prospects of graduates from Central, Eastern, Southern and Western Connecticut State Universities. We have stepped up our connections with businesses, nonprofit agencies and community organizations all across our state, responding with academic programs, intern programs and career services that we believe are making a difference for our students and our state. In fact, during the past few years, we have added an innovative array of new academic degree programs, majors and concentrations, attracting enthusiastic and well-qualified students. And as you know, since nearly 9 in 10 of our graduates stay in the state after graduation, all of this is good news for Connecticut.

Let me briefly mention just a few of the areas where we have seen substantial growth.

1. **Science:** There is a national call for more students to pursue the science fields, and this is especially important in Connecticut, where a number of science-based industries, such as biotechnology and pharmaceuticals, play a prominent role in our economy. The number of students majoring in the sciences across CSUS has grown by 43 percent since 2005. That includes students majoring in scientific academic disciplines including biochemistry, biomolecular sciences, meteorology, chemistry, earth and planetary sciences, environmental science, physics and related fields. With your support, two of our universities have new academic science buildings on campus, resulting in even higher enrollment numbers than we have seen in the past. The phrase, "if you build it, they will come," comes to mind. Of course, the facilities are part of the equation. Having top-notch faculty committed to student success is just as critical. What these numbers tell us is that when students interested in pursuing science consider attending our universities, they like what they see. Connecticut businesses in these fields are taking notice as well.
2. **Nursing:** During the past five years, CSUS has awarded more bachelor's degrees in nursing than any other institution of higher education in Connecticut, including a 46 percent increase between 2008 and 2010. Overall, CSUS awarded 27 percent of all the nursing bachelor's degrees in the state in 2010, up from 21 percent in 2008. The number of students enrolled in nursing programs at CSUS institutions, including bachelor's and master's degree programs, has increased by 40 percent between 2004 and 2010.
3. **Accounting:** Department of Labor data indicate that accounting and auditing is projected to be one of the growth fields in Connecticut in the coming years. The number of accounting majors graduating from CSUS increased by 17.7 percent in the past decade. In fact, CSUS conferred more accounting degrees at the baccalaureate level than UConn in the 2009-10 academic year, according to data on the Department of Higher Education website. At Southern, which offers a Bachelor of Science degree with a concentration in accounting, the number of students in the program has grown from 159 in fall 2006 to 271 in fall 2010. The number of accounting students increased at all four universities last year.

4. Engineering: It was only few years ago that our former Board Chairman served on a statewide task force which identified engineering as a critical workforce need for Connecticut. We responded quickly, and established new programs, in civil and mechanical engineering at Central, attracting students in numbers well beyond even our most optimistic projections. In the first year of the mechanical engineering program, for example, Central anticipated 30 applicants and received over 80. In that first class 42 were accepted into the program. That was in 2006. By 2008 the number had grown to 125, and this year to 166. Connecticut industries are taking notice, and looking to Central for high caliber engineering graduates.

Those are a number of examples of workforce demand areas where we have seen continual growth. Briefly, let me highlight a number of other recent academic initiatives at the universities:

- A new interdisciplinary major in Labor Relations and Human Resource Management was started at Eastern last fall, and features core courses offered through the Departments of Economics, Business Administration, and Psychology. Courses in the new major range from organizational behavior to industrial psychology, supervision and employment law.
- We are also cognizant of the potential of “green jobs” in Connecticut’s economy, and we are responding. Eastern, for example, has developed two new “Green” Certificates in Sustainable Energy Management offered through the School of Continuing Education, as well as courses in robotics and nanotechnology. Several of the science programs whose enrollment growth was mentioned before are by their very nature “green,” although they had not been noted as such in the past.
- At Southern, a new sixth year diploma program, “educational coach,” will be offered to certified teachers, administrators, counselors and school psychologists – the first of its kind in the state. The program will provide classroom management techniques meeting the needs of students of all abilities and backgrounds.
- Increasing interest in forensic science helped drive the establishment of a minor at Southern, offered for the first time last fall. The program addresses topics such as crime scene documentation and reconstruction, criminalistics and DNA analysis. This interdisciplinary minor helps students prepare themselves for careers in criminal justice, law, government and academia, among other areas.

And finally, I would like to mention the collaborative of our four universities to create a graduate certificate program in nanotechnology which we have developed, and which has tremendous potential for our state and our workforce. With a \$750,000 grant from the federal Department of Energy supporting specialized equipment purchase, faculty development and curriculum development, the academic initiative will include the disciplines of physics, chemistry and biology. To fully make use of the expertise of faculty, specialized equipment and facilities, the initiative creates the CSUS Nanotechnology Center at Southern Connecticut State University with Nanotechnology Hubs at each of the other institutions in the system. The 14 credit nanotechnology program will offer courses that include material characterization, physics and chemistry of nanoscale materials, fabrication techniques, nanoscale applications, microscopy with emphasis on atomic force, transmission and scanning electron techniques, and applications in nanobiology and nanomedicine.

The nanotechnology initiative has been developed by a committee of faculty and administrators from each of the four universities, working with the System Office to secure federal funding, and developing program plans and guidelines during the past year. As you may know, the federal government has identified nanotechnology as having the potential to profoundly change our economy and improve our standard of living, in a manner not unlike the impact made by advances over the past two decades by information technology.

Southern Connecticut State University is also seeking approval of a Master of Science in Applied Physics that follows the Professional Science Master model. This program combines advanced preparation in nanotechnology or optical detection with management, entrepreneurship and industrial internship experiences.

Thank you very much for the opportunity to share with you some of the initiatives underway at the Connecticut State University System, and to underscore our commitment to working closely with business and industry in our state. We welcome the opportunity to work with you on this bill, and other workforce initiatives. Please contact Jill E. Ferraiolo, Associate Vice Chancellor for Government Relations/Communications, if you require any additional information or have any questions regarding this matter.